

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-28. (Canceled)

29. (Currently Amended): A structured data receiving method of receiving a plurality of fragment data constituting a structured data having a tree structure and a plurality of fragment data configuration information, created one for each fragment data, to concatenate said plurality of fragment data at a receiving side to generate the structured data stored,

~~each piece of fragment data configuration information including reference information having location information on a location of corresponding fragment data and position information on a connection position of the corresponding fragment data in the structured data,~~

each piece of fragment data configuration information including reference information and position information, wherein the reference information has location information on a location of corresponding fragment data, and the position information is information on a connection position of the corresponding fragment data in the structured data,

said structured data receiving method comprising the steps of:

specifying the location of the corresponding fragment data based on the reference information included in each piece of fragment data configuration information[[:]];

receiving fragment data from the specified location; and

concatenating the received fragment data to generate the structured data, based on the position information included in each piece of fragment data[[]] configuration information,

wherein said structured data includes at least one node, each having at least one node located one level lower and at least one node each having no lower node, a position order of the at least one lower-node being determined, and

wherein said position information includes information specifying a node in the structured data and information specifying a connection position of the corresponding fragment

data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding fragment data is information specifying a position immediately before the specified node or information specifying a last position at a level one level lower than the specified node,

~~wherein when the connection position of the corresponding fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said position information is information specifying the lower node and the information specifying the connection position of the corresponding fragment data in relation to the specified node in said position information is information specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the specified node, as the connection position of a highest node of the corresponding fragment data, and~~

~~when the connection position of the corresponding fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said position information is information specifying the given node and the information specifying the connection position of the corresponding fragment data in relation to the specified node in said position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the corresponding fragment data.~~

wherein, if said information specifying the connection position of the corresponding fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the corresponding fragment data to a position immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the corresponding fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the corresponding fragment data to a position after a last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the

specified node when the specified node has no lower node.

30. (Currently Amended): A structured data receiving method of receiving a plurality of fragment data constituting a structured data having a tree structure and a plurality of fragment data configuration information, created one for each fragment data, to concatenate said plurality of fragment data at a receiving side to generate the structured data stored,

each piece of fragment data configuration information including reference information and position information on a connection position of the corresponding fragment data in the structured data, the reference information having location information on a location of corresponding fragment data and information on a name of a highest node of the corresponding fragment data,

said structured data receiving method comprising the steps of:

specifying the location of the corresponding fragment data based on the location information included in the reference information included in each piece of fragment data configuration information;

receiving fragment data from the specified location;

processing said position information included in each piece of fragment data configuration information according to the information on the name of the highest node included in the reference information included in each piece of fragment data configuration information; and

concatenating the received fragment data to generate the structured data, based on the processed position information,

wherein said structured data includes at least one node, each having at least one node located one level lower and at least one node each having no lower node, a position order of the at least one lower-node being determined, and

wherein said position information includes information specifying a node in the structured data and information specifying a connection position of the corresponding fragment data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding fragment data is information specifying a position immediately before the specified node or

information specifying a last position at a level one level lower than the specified node,

~~wherein when the connection position of the corresponding fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said position information is information specifying the lower node and the information specifying the connection position of the corresponding fragment data in relation to the specified node in said position information is information specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the specified node, as the connection position of a highest node of the corresponding fragment data, and~~

~~when the connection position of the corresponding fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said position information is information specifying the given node and the information specifying the connection position of the corresponding fragment data in relation to the specified node in said position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the corresponding fragment data.~~

wherein, if said information specifying the connection position of the corresponding fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the corresponding fragment data to a position immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the corresponding fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the corresponding fragment data to a position after a last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the specified node when the specified node has no lower node.

31. (Currently Amended): A structured data receiving method of receiving a plurality of

fragment data constituting a structured data having a tree structure and a plurality of fragment data configuration information, created one for each fragment data, to concatenate said plurality of fragment data at a receiving side to generate the structured data stored,

each piece of fragment data configuration information including reference information and position information on a connection position of the corresponding fragment data in the structured data, the reference information having location information on a location of corresponding fragment data and information on a content of the corresponding fragment data, said structured data receiving method comprising the steps of:

specifying the location of the corresponding fragment data based on the location information included in the reference information included in each piece of fragment data configuration information;

receiving from the specified location, fragment data determined to be concatenated based on the information on the content included in the reference information included in each piece of fragment data configuration information; and

concatenating the received fragment data to generate the structured data, based on the position information included in each piece of fragment data configuration information,

wherein said structured data includes at least one node, each having at least one node located one level lower and at least one node each having no lower node, a position order of the at least one lower-node being determined, and

wherein said position information includes information specifying a node in the structured data and information specifying a connection position of the corresponding fragment data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding fragment data is information specifying a position immediately before the specified node or information specifying a last position at a level one level lower than the specified node,

~~wherein when the connection position of the corresponding fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said position information is information specifying the lower node and the information specifying the connection position of the corresponding fragment data in relation to the specified node in said position information is information~~

~~specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the specified node, as the connection position of a highest node of the corresponding fragment data, and~~

~~when the connection position of the corresponding fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said position information is information specifying the given node and the information specifying the connection position of the corresponding fragment data in relation to the specified node in said position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the corresponding fragment data.~~

wherein, if said information specifying the connection position of the corresponding fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the corresponding fragment data to a position immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the corresponding fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the corresponding fragment data to a position after a last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the specified node when the specified node has no lower node.

32. (Currently Amended): A structured data receiving method of receiving a plurality of fragment data constituting a structured data having a tree structure and a plurality of fragment data configuration information, created one for each fragment data, to concatenate said plurality of fragment data at a receiving side to generate the structured data stored,

each piece of fragment data configuration information including reference information and position information on a connection position of the corresponding fragment data in the structured data, the reference information having location information on a location of

corresponding fragment data, information on a name of a highest node of the corresponding fragment data, and information on a content of the corresponding fragment data,

said structured data receiving method comprising the steps of:

specifying the location of the corresponding fragment data based on the location information included in the reference information included in each piece of fragment data configuration information;

receiving from the specified location, fragment data determined to be concatenated based on the information on the content included in the reference information included in each piece of fragment data configuration information;

processing the position information included in each piece of fragment data configuration information according to the information on the name of the highest node included in the reference information included in each piece of fragment data configuration information;

concatenating the received fragment data to generate the structured data, based on the processed position information,

wherein said structured data includes at least one node, each having at least one node located one level lower and at least one node each having no lower node, a position order of the at least one lower-node being determined, and

wherein said position information includes information specifying a node in the structured data and information specifying a connection position of the corresponding fragment data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding fragment data is information specifying a position immediately before the specified node or information specifying a last position at a level one level lower than the specified node,

~~wherein when the connection position of the corresponding fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said position information is information specifying the lower node and the information specifying the connection position of the corresponding fragment data in relation to the specified node in said position information is information specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position~~

~~of the specified node, as the connection position of a highest node of the corresponding fragment data, and~~

~~when the connection position of the corresponding fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said position information is information specifying the given node and the information specifying the connection position of the corresponding fragment data in relation to the specified node in said position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the corresponding fragment data.~~

wherein, if said information specifying the connection position of the corresponding fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the corresponding fragment data to a position immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the corresponding fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the corresponding fragment data to a position after a last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the specified node when the specified node has no lower node.

33. (Currently Amended): A structured data receiving method of receiving a plurality of first fragment data, a plurality of fragment data configuration information each corresponding to each first fragment data and which are information for generating a structured data having a tree structure by concatenating said plurality of first fragment data at a receiving side, and a fragment data update data including a second fragment data and concatenation information for concatenating the second fragment data and the structured data,

each piece of fragment data configuration information including reference information ~~having location information on a location of corresponding first fragment data~~, first position information on a connection position of the corresponding first fragment data in the structured

data, and first concatenation processing information for specifying an 'add' as a processing way for concatenating the corresponding first fragment data and the structured data at the receiving side, wherein the reference information has location information on a location of corresponding first fragment data,

the concatenation information included in the fragment data update data including a second position information on a connection position of the corresponding second fragment data in the structured data and second concatenation processing information for specifying an "add" as a processing way for concatenating the corresponding second fragment data and the structured data at the receiving side,

wherein said structured data includes at least one node each having at least one node located one level lower and at least one node each having no lower node, position order of the at least one lower-node being determined, and

wherein said first position information included in the fragment data configuration information includes information specifying a node in the structured data and information specifying a connection position of the corresponding first fragment data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding first fragment data is information specifying a position immediately before the specified node or information specifying a last position at a level one level lower than the specified node,

~~wherein when the connection position of the corresponding first fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said first position information is information specifying the lower node and the information specifying the connection position of the corresponding first fragment data in relation to the specified node in said first position information is information specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the specified node, as the connection position of a highest node of the corresponding first fragment data, and~~

~~when the connection position of the corresponding first fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or~~

~~is a position one level lower than a given node having no lower node, the information specifying the node included in said first position information is information specifying the given node and the information specifying the connection position of the corresponding first fragment data in relation to the specified node in said first position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the corresponding first fragment data,~~

wherein said second position information included in the fragment data update data includes information specifying a node in the structured data and information specifying a connection position of the corresponding second fragment data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding second fragment data is information specifying a position immediately before the specified node or information specifying the last position at the level one level lower than the specified node,

~~wherein when the connection position of the second fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said second position information is information specifying the lower node and the information specifying the connection position of the second fragment data in relation to the specified node in said second position information is information specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the specified node, as the connection position of a highest node of the second fragment data, and~~

~~when the connection position of the second fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said second position information is information specifying the given node and the information specifying the connection position of the second fragment data in relation to the specified node in said second position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the second fragment data,~~

said structured data receiving method comprising the steps of:
receiving the fragment data configuration information and the fragment data update data;
specifying the location of the corresponding fragment data based on the reference information included in each piece of fragment data configuration information;
receiving the first fragment data from the specified location; and
adding the received first fragment data to the connection position based on the first position information and the first concatenation processing information included in each piece of fragment data configuration information and adding the second fragment data included in the received fragment data update data to the connection position based on said second position information and the second concatenation processing information included in the received fragment data update data to generate the structured data[[]].

wherein, if said information specifying the connection position of the received first fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the received first fragment data to a position immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the received first fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the received first fragment data to a position after a last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the specified node when the specified node has no lower node; and

if said information specifying the connection position of the second fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the second fragment data to a position immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the second fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the second fragment data to the position after the last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the

specified node when the specified node has no lower node.

34. (Currently Amended): A structured data receiving method of receiving a plurality of first fragment data, a plurality of fragment data configuration information each corresponding to each first fragment data and which are information for generating a structured data having a tree structure by concatenating said plurality of first fragment data at a receiving side, and a fragment data update data including a second fragment data and concatenation information for concatenating the second fragment data and the structured data,

each piece of fragment data configuration information including reference information, first position information on a connection position of the corresponding first fragment data in the structured data, and first concatenation processing information for specifying an “add” as a processing way for concatenating the corresponding first fragment data and the structured data at the receiving side, the reference information having location information on a location of corresponding first fragment data and information on a name of a highest node of the corresponding first fragment data,

the concatenation information included in the fragment data update data including a second position information on a connection position of the corresponding second fragment data in the structured data and second concatenation processing information for specifying an “add” as a processing way for concatenating the corresponding second fragment data and the structured data at the receiving side,

wherein said structured data includes at least one node each having at least one node located one level lower and at least one node each having no lower node, position order of the at least one lower-node being determined, and

wherein said first position information included in the fragment data configuration information includes information specifying a node in the structured data and information specifying a connection position of the corresponding first fragment data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding first fragment data is information specifying a position immediately before the specified node or information specifying a last position at a level one level lower than the specified node,

~~wherein when the connection position of the corresponding first fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said first position information is information specifying the lower node and the information specifying the connection position of the corresponding first fragment data in relation to the specified node in said first position information is information specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the specified node, as the connection position of a highest node of the corresponding first fragment data, and~~

~~when the connection position of the corresponding first fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said first position information is information specifying the given node and the information specifying the connection position of the corresponding first fragment data in relation to the specified node in said first position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the corresponding first fragment data,~~

wherein said second position information included in the fragment data update data includes information specifying a node in the structured data and information specifying a connection position of the corresponding second fragment data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding second fragment data is information specifying a position immediately before the specified node or information specifying the last position at the level one level lower than the specified node,

~~wherein when the connection position of the second fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said second position information is information specifying the lower node and the information specifying the connection position of the second fragment data in relation to the specified node in said second position information is information specifying a~~

~~position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the specified node, as the connection position of a highest node of the second fragment data, and~~

~~when the connection position of the second fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said second position information is information specifying the given node and the information specifying the connection position of the second fragment data in relation to the specified node in said second position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the second fragment data,~~

said structured data receiving method comprising the steps of:

receiving the fragment data configuration information and the fragment data update data;

specifying the location of the corresponding fragment data based on the location information included in the reference information included in each piece of fragment data configuration information;

receiving the first fragment data from the specified location;

processing said first position information included in each piece of fragment data configuration information according to the information on the name of the highest node included in the reference information included in each piece of fragment data configuration information; and

adding the received first fragment data to the connection position based on the processed first position information and the first concatenation processing information included in each piece of fragment data configuration information and adding the second fragment data included in the received fragment data update data to the connection position based on said second position information and the second concatenation processing information included in the received fragment data update data to generate the structured data[[.]],

wherein, if said information specifying the connection position of the received first fragment data is the information specifying the position immediately before the specified node, connecting a highest node of the received first fragment data to a position immediately

before the specified node at the same level as the specified node; and

if said information specifying the connection position of the received first fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the received first fragment data to a position after a last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the specified node when the specified node has no lower node; and

if said information specifying the connection position of the second fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the second fragment data to a position immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the second fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the second fragment data to the position after the last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the specified node when the specified node has no lower node.

35. (Currently Amended): A structured data receiving method of receiving a plurality of first fragment data, a plurality of fragment data configuration information each corresponding to each first fragment data and which are information for generating a structured data having a tree structure by concatenating said plurality of first fragment data at a receiving side, and a fragment data update data including a second fragment data and concatenation information for concatenating the second fragment data and the structured data,

each piece of fragment data configuration information including reference information, first position information on a connection position of the corresponding first fragment data in the structured data, and first concatenation processing information for specifying an 'add' as a processing way for concatenating the corresponding first fragment data and the structured data at the receiving side, the reference information having location information on a location of corresponding fragment data and information on a content of the corresponding fragment data,

the concatenation information included in the fragment data update data including a second position information on a connection position of the corresponding second fragment data in the structured data and second concatenation processing information for specifying an “add” as a processing way for concatenating the corresponding second fragment data and the structured data at the receiving side,

wherein said structured data includes at least one node each having at least one node located one level lower and at least one node each having no lower node, position order of the at least one lower-node being determined, and

wherein said first position information included in the fragment data configuration information includes information specifying a node in the structured data and information specifying a connection position of the corresponding first fragment data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding first fragment data is information specifying a position immediately before the specified node or information specifying a last position at a level one level lower than the specified node,

~~wherein when the connection position of the corresponding first fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said first position information is information specifying the lower node and the information specifying the connection position of the corresponding first fragment data in relation to the specified node in said first position information is information specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the specified node, as the connection position of a highest node of the corresponding first fragment data, and~~

~~when the connection position of the corresponding first fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said first position information is information specifying the given node and the information specifying the connection position of the corresponding first fragment data in relation to the specified node in said first position information is information specifying a~~

~~position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the corresponding first fragment data,~~

wherein said second position information included in the fragment data update data includes information specifying a node in the structured data and information specifying a connection position of the corresponding second fragment data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding second fragment data is information specifying a position immediately before the specified node or information specifying the last position at the level one level lower than the specified node,

~~wherein when the connection position of the second fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said second position information is information specifying the lower node and the information specifying the connection position of the second fragment data in relation to the specified node in said second position information is information specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the specified node, as the connection position of a highest node of the second fragment data, and~~

~~when the connection position of the second fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said second position information is information specifying the given node and the information specifying the connection position of the second fragment data in relation to the specified node in said second position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the second fragment data,~~

said structured data receiving method comprising the steps of:

receiving the fragment data configuration information and the fragment data update data;

specifying the location of the corresponding first fragment data based on the reference information included in each piece of fragment data configuration information;

receiving from the specified location, the first fragment data determined to be concatenated based on the information on the content included in the reference information included in each piece of fragment data configuration information; and

adding the received first fragment data to the connection position based on the first position information and the first concatenation processing information included in each piece of fragment data configuration information and adding the second fragment data included in the received fragment data update data to the connection position based on said second position information and the second concatenation processing information included in the received fragment data update data to generate the structured data[[]],

wherein, if said information specifying the connection position of the received first fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the received first fragment data to a position immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the received first fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the received first fragment data to a position after a last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the specified node when the specified node has no lower node; and

if said information specifying the connection position of the second fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the second fragment data to a position immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the second fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the second fragment data to the position after the last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the specified node when the specified node has no lower node.

36. (Currently Amended): A structured data receiving method of receiving a plurality of first fragment data, a plurality of fragment data configuration information each corresponding to each first fragment data and which are information for generating a structured data having a tree structure by concatenating said plurality of first fragment data at a receiving side, and a fragment data update data including a second fragment data and concatenation information for concatenating the second fragment data and the structured data,

each piece of fragment data configuration information including reference information, first position information on a connection position of the corresponding first fragment data in the structured data, and first concatenation processing information for specifying an “add” as a processing way for concatenating the corresponding first fragment data and the structured data at the receiving side, the reference information having location information on a location of corresponding first fragment data, information on a name of a highest node of the corresponding first fragment data, and information on a content of the corresponding fragment data,

the concatenation information included in the fragment data update data including a second position information on a connection position of the corresponding second fragment data in the structured data and second concatenation processing information for specifying an “add” as a processing way for concatenating the corresponding second fragment data and the structured data at the receiving side,

wherein said structured data includes at least one node each having at least one node located one level lower and at least one node each having no lower node, position order of the at least one lower-node being determined, and

wherein said first position information included in the fragment data configuration information includes information specifying a node in the structured data and information specifying a connection position of the corresponding first fragment data in relation to the specified node, and

wherein said information specifying the connection position of the corresponding first fragment data is information specifying a position immediately before the specified node or information specifying a last position at a level one level lower than the specified node,

~~wherein when the connection position of the corresponding first fragment data in the structured data is immediately before a lower node located one level lower than a given node, the~~

~~information specifying the node included in said first position information is information specifying the lower node and the information specifying the connection position of the corresponding first fragment data in relation to the specified node in said first position information is information specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the specified node, as the connection position of a highest node of the corresponding first fragment data, and~~

~~when the connection position of the corresponding first fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said first position information is information specifying the given node and the information specifying the connection position of the corresponding first fragment data in relation to the specified node in said first position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the corresponding first fragment data,~~

~~wherein said second position information included in the fragment data update data includes information specifying a node in the structured data and information specifying a connection position of the corresponding second fragment data in relation to the specified node, and~~

~~wherein said information specifying the connection position of the corresponding second fragment data is information specifying a position immediately before the specified node or information specifying the last position at the level one level lower than the specified node,~~

~~wherein when the connection position of the second fragment data in the structured data is immediately before a lower node located one level lower than a given node, the information specifying the node included in said second position information is information specifying the lower node and the information specifying the connection position of the second fragment data in relation to the specified node in said second position information is information specifying a position, which is at the same level as that of the specified node in relation to a node that is one level higher than that of the specified node and which is immediately before a position of the~~

~~specified node, as the connection position of a highest node of the second fragment data, and~~

~~when the connection position of the second fragment data in the structured data is immediately after a last node of lower nodes located one level lower than a given node or is a position one level lower than a given node having no lower node, the information specifying the node included in said second position information is information specifying the given node and the information specifying the connection position of the second fragment data in relation to the specified node in said second position information is information specifying a position, which is a position at one level lower than that of the specified node and which is the last node at the lower level, as the connection position of the highest node of the second fragment data,~~

said structured data receiving method comprising the steps of:

receiving the fragment data configuration information and the fragment data update data;
specifying the location of the corresponding fragment data based on the location information included in the reference information included in each piece of fragment data configuration information;

receiving from the specified location, the first fragment data determined to be concatenated based on the information on the content included in the reference information included in each piece of fragment data configuration information;

processing said first position information included in each piece of fragment data configuration information according to the information on the name of the highest node included in the reference information included in each piece of fragment data configuration information;
and

adding the received first fragment data to the connection position based on the processed first position information and the first concatenation processing information included in each piece of fragment data configuration information and adding the second fragment data included in the received fragment data update data to the connection position based on said second position information and the second concatenation processing information included in the received fragment data update data to generate the structured data[[]],

wherein, if said information specifying the connection position of the received first fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the received first fragment data to a position

immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the received first fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the received first fragment data to a position after a last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the specified node when the specified node has no lower node; and

if said information specifying the connection position of the second fragment data is the information specifying the position immediately before the specified node, then connecting a highest node of the second fragment data to a position immediately before the specified node at the same level as the specified node; and

if said information specifying the connection position of the second fragment data is the information specifying the last position at the level one level lower than the specified node, then connecting the highest node of the second fragment data to the position after the last node among the at least one lower-node of the specified node when the specified node has the at least one lower-node and connecting the highest node as a first lower-node of the specified node when the specified node has no lower node.